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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,526	10/29/2003	Shi-Tron Lin	500-003	6387
24002	7590	10/05/2006	EXAMINER	
ANTHONY R. BARKUME 20 GATEWAY LANE MANORVILLE, NY 11949			CRANE, SARA W	
			ART UNIT	PAPER NUMBER
			2811	

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/696,526

Applicant(s)

LIN ET AL.

Examiner

Sara W. Crane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2006 (RCE filing).
- 2a) ☐ This action is **FINAL**:                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-9,11-20,22 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11-13 and 26 is/are rejected.
- 7) ☒ Claim(s) 14-20, 22, 24-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 3-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Cheng et al.

With respect to claim 1, figure 7 of Cheng et al. shows an ESD protection device (title) comprising a p-type semiconductor bulk 22, a first n-type region 26 formed in the bulk, a second n-type region 28 formed in the bulk, and a channel region 30 formed between 26 and 28. The channel has a first part, read on the left-hand third of region 30, a second part, read on the middle third of region 30, and a third part, read on the right-hand third of region 30. The first and third parts are therefore at different ends of the channel region, and the second part is between the first and third parts. 38 is a first gate segment formed over the first part of the channel region. (38 is formed over all of the parts of the channel region, so it is formed over the first part. Note that the claim does not say "formed *only* over a first part of a channel region.") 24 is a first field-oxide stripe formed over the second part of the channel region. (Again, the claim does not say "formed *only* over a second part of the channel region.") And both ends of 38 overlap field-oxide stripe 24.

With respect to claim 3, the right-hand third of the channel and the middle third of the channel together form a continuous portion. With respect to claim 4, 38 and 24 are

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substantially collinear. With respect to claim 5, 24 is oxide (column 4, line 31) and 38 is poly (column 4, line 65).

Claims 6-9, 11-13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng et al. in view of Lin et al.

See reasons of record in the Office action of 30 December 2005.

Claims 14-20, 22, and 24-25 would be allowable if expressed in completed form.

### ***Conclusion***


Applicant's remarks of 14 September 2006 have been considered, but are not convincing. As noted above, it looks as if claim 1 was intended to state that the field oxide is formed only over the second part of the channel. But the claim language does not say anything about "only." So perhaps claim 1 could be amended to resolve this issue. With respect to the Lin reference, as noted in the rejection, Lin figure 7 shows two types of islands, including both 20a and 20b. 20b includes the thick oxide. The reference to second gate 40D is with respect to the base reference of Cheng et al., not Line et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Crane, whose telephone number is (571) 272-1652.

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The supervisor for Art Unit 2811, Eddie Lee can be reached on (571) 272-1732. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sara W. Crane  
Primary Examiner  
Art Unit 2811